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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,949	10/10/2000	Winand D'Souza	367.39104X00	2913

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EXAMINER

D AGOSTA, STEPHEN M

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/684,949

Applicant(s)

D'SOUZA, WINAND

Examiner

Stephen M. D'Agosta

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-18 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 7-26-04 have been fully considered but they are not persuasive.

1. The title has been changed and overcomes the examiner's objection.
2. The applicant argues that the prior art cited does not teach attenuation means regarding the two modes (ie. ear-piece and loudspeaker modes). The examiner disagrees since Hawker clearly discloses hands-free and handset modes which inherently requires two volumes (eg. one louder than the other) and hence attenuation of the signal(s) if/when changing between the two modes. The means by which Hawker performs this operation may differ from that of the applicant, but none-the-less reads on the claims.

The examiner also notes that "attenuation" is a broad term and can be achieved in many ways, eg. via electronics, mechanical baffles, etc.. Hence, Hawker's ear-piece and loudspeaker modes have different "attenuation characteristics" applied so that one is louder than the other (see Hawker's claim #5). Hawker also teach foam as attenuation material (page 6, L10-13).

3. The applicant argues that there is no attenuation of the signal. The examiner disagrees since Hawker teaches ear-piece and loudspeaker modes and therefore inherently adjusts/attenuates the signal for each mode. Hawker also teaches electronic equalization (page 6, L26-28) and an audio amplifier (page 6, L33).

4. The applicant also argues that Umemoto does not cure deficiencies found in Hawker. The examiner disagrees since he teaches a radio phone with a circuit that varies the level of the sending-speech signal which reads on the claim (abstract, figure 1 and C2, L31-49). Hence the signal is increased/attenuated depending upon the user's current environment.

5. A new rejection is found below – **The examiner now OBJECTS to claim 13.**

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5-7 and 12, 15 and 17-18 rejected under 35 U.S.C. 102(b) as being anticipated by Hawker et al. WO-97/47117 (hereafter Hawker).

As per **claims 1 and 7**, Hawker teaches a portable (telecommunications) device (figure 1) comprising

A housing (figure 1, #12) having a first surface with an outlet for the egress of an acoustic signal when in a loudspeaker mode (figure 2, #46) and a second surface with an outlet for the egress of an acoustic signal when in the earpiece mode (figure 1, #20)

An electro-acoustic transducer located within the housing for converting an electrical signal input to the transducer into an acoustic signal, the transducer being operable to output acoustic signals when in the loudspeaker mode or the earpiece mode, the audio path between the transducer and the outlet for the egress of an acoustic signal when in the loudspeaker mode being less attenuated than the audio path between the transducer and the outlet for the egress of an acoustic signal when in the earpiece mode (page 6, L30-36 and page 7, L4-30).

As per **claim 3**, Hawker teaches claim 1 further comprising an amplifier for amplifying the electrical signal prior to inputting to the transducer and a gain control for controlling the gain of the amplifier, the gain control being operable to increase the gain of the amplifier when the device is to operate in a loudspeaker mode relative to the gain of the amplifier when the gain is in an earpiece mode (page 6, L30-36 and page 7, L4-30).

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As per **claims 5 and 12**, Hawker teaches claim 4/3/9 and that the output level as a function of earpiece or loudspeaker operation "must fall within a certain range" and that his invention "employs appropriate amounts of electronic equalization, ie. shaping the frequency response electronically, to achieve the required amplifier output over the desired frequency range" (page 7, L4-24) [eg. wherein the difference in gain between the two modes is around 30db].

As per **claims 6, 15 and 17**, Hawker teaches claim 1/3/5 wherein the device is a portable communication device (eg. cell phone, figure 1).

As per **claim 18**, Hawker teaches a portable (telecommunications) device (figure 1) comprising

A housing (figure 1, #12) having a first surface with an outlet for the egress of an acoustic signal when in a loudspeaker mode (figure 2, #46) and a second surface with an outlet for the egress of an acoustic signal when in the earpiece mode (figure 1, #20)

An electro-acoustic transducer located within the housing for converting an electrical signal input to the transducer into an acoustic signal (page 6, L30-36 and page 7, L4-30).

A first audio path defined within the housing between the transducer and the first outlet for the egress of the acoustic signal (figure 3 shows transducer #20 and path to front enclosure for egress via holes #40/#42 and also foam attenuation material, page 6, L10-13);

A second audio path defined within the housing between the transducer and the second outlet for the egress of the acoustic signal (figure 3 shows transducer #20 and path to back enclosure for egress via holes #46 and also foam attenuation material, page 6, L10-13);; and

Attenuation means within the second audio path for attenuating the acoustic signal, whereby the acoustic signal egressing the first outlet had an amplitude that is greater than an amplitude of the acoustic signal egressing from the second outlet.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 8, 11 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Hawker in view of Umemoto et al. US 5,379,338 (hereafter Umemoto).

As per **claim 2**, Hawker teaches claim 1 **but is silent on** an attenuator is provided between the transducer and the outlet for the egress of the acoustic signal when in earpiece mode.

Hawker does teach an audio amplifier that is increased to raise the level/lower the level of the audio sufficiently to allow the user to operate in either handsfree or earpiece mode (page 6, L30-36). So Hawker chooses to use a variable audio amplifier while the applicant chooses to use an attenuator to vary the amount of audio output. Since the use of an attenuator is well known, one skilled in the art would either use a variable amplifier or an attenuator to vary the amount of audio amplification.

The examiner notes that that attenuators/variable amplifiers are well known and would be used by one skilled in the art to provide the proper signal levels between the transducer and earpiece output (ie. to raise/lower the volume, increase signal levels, etc.). The examiner puts forth that that one skilled would not send the same signal to both the loudspeaker output and earpiece output since one requires a louder signal/output to project to a large area while the other (earpiece mode) requires a lower signal/output. The attenuator can be an active/passive component that allows one signal to be generated and is either routed around the attenuator (for loudspeaker) and/or is routed to the attenuator prior to outputting to the earpiece. **Umemoto** teaches two places for use -- the in-a-car mode or the field mode -- and three or more types of the using space mode may be used to cope with three or more types of using space

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with different acoustic characteristics. Furthermore, while, in the above embodiments, a variable resistor has been employed as varying means for varying the level of the speech signal, the varying means may be other elements such as a variable attenuator, a variable amplifier, a combination of an amplifier and a variable resistor, and a combination of an amplifier and a variable attenuator (C18, L1-15).

It would have been obvious to one skilled in the art at the time of the invention to modify Hawker, such that an attenuator/variable amplifier is used, to provide proper signal levels between the transducer and earpiece output.

As per **claim 8**, Hawker in view of Umemoto teaches claim 1/2 further comprising an amplifier for amplifying the electrical signal prior to inputting to the transducer and a gain control for controlling the gain of the amplifier, the gain control being operable to increase the gain of the amplifier when the device is to operate in a loudspeaker mode relative to the gain of the amplifier when the gain is in an earpiece mode (page 6, L30-36 and page 7, L4-30).

As per **claim 11**, Hawker in view of Umemoto teaches claim 24 and that the output level as a function of earpiece or loudspeaker operation "must fall within a certain range" and that his invention "employs appropriate amounts of electronic equalization, ie. shaping the frequency response electronically, to achieve the required amplifier output over the desired frequency range" (page 7, L4-24) [eg. wherein the difference in gain between the two modes is around 30db].

As per **claim 14**, Hawker in view of Umemoto teaches claim 2 wherein the device is a portable communication device (eg. cell phone, figure 1).

Claims 4, 10, 13 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Hawker in view of Shimazaki US Patent 5,493,690 (hereafter Shimazaki).

As per **claims 4 and 10** Hawker teaches claim 1/3 and gain control with associated amplifier which amplifies the electrical signal (page 6, L30-36 and page 7, L4-30) **but is silent on** including a first housing and a second housing coupled together in a moveable manner, the device further comprising a detector for detecting the

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position of one housing relative to the other and for operating the gain control switch in accordance with the position to control gain of the amplifier to control a level of the electrical signal.

Cellular phones designed as two-piece folding units are well known in the art and Hawker teaches a terminal that controls the gain of the audio output based on proximity or manual switch (page 7, L25-30).

Shimazaki teaches a foldable portable telephone (title and figure 1b) which uses a detection circuit to detect an open or closed condition of a cover relative to a body section (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Hawker, such that his cell phone is a two-piece housing with a detector to detect the position of one housing relative to another, so that the phone can anticipate whether or not to provide earpiece/handsfree operation based upon how the phone is positioned (ie. transmit output to loudspeaker if cover is closed and earpiece if cover is open).

Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Hawker in view of Umemoto as applied to claim 2 and further in view of Shimazaki.

As per **claim 9**, Hawker teaches claim 2 and gain control with associated amplifier which amplifies the electrical signal (page 6, L30-36 and page 7, L4-30) but is silent on including a first housing and a second housing coupled together in a moveable manner, the device further comprising a detector for detecting the position of one housing relative to the other and for operating the gain control switch in accordance with the position to control gain of the amplifier to control a level of the electrical signal.

Cellular phones designed as two-piece folding units are well known in the art and Hawker teaches a terminal that controls the gain of the audio output based on proximity or manual switch (page 7, L25-30).

Shimazaki teaches a foldable portable telephone (title and figure 1b) which uses a detection circuit to detect an open or closed condition of a cover relative to a body section (abstract).

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It would have been obvious to one skilled in the art at the time of the invention to modify Hawker in view of Umemoto, such that his cell phone is a two-piece housing with a detector to detect the position of one housing relative to another, so that the phone can anticipate whether or not to provide earpiece/handsfree operation based upon how the phone is positioned (ie. transmit output to loudspeaker if cover is closed and earpiece if cover is open).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stephen D'Agosta
8-30-04



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